



## Erratum

### Superconformal Electrodeposition of Copper [Electrochemical and Solid-State Letters, 4, C26 (2001)]

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Due to an error in the printing process, two versions of the paper were published, one in print and one in electronic format. Several errors appear in the print version which do not appear in the electronic version available online. Because of this, we direct the reader to the electronic version available at

<http://www3.electrochem.org/journal.html>

For those who do not have access to the electronic version of the *Electrochemical and Solid-State Letters*, the following correction should be noted.

The second paragraph on page C27 should read:

Cyclic  $i$ - $\eta$  curves (Fig. 2a) reveal hysteresis that arises from accumulation of an MPSA derivative on the surface. The acceleration on the reverse sweep saturates at  $C_{\text{MPSA}} \geq 15.90 \mu\text{ mol/L}$  (Fig. 2a), indicating saturation of the surface coverage. Time-dependent fractional surface coverage  $\theta(t)$  was calculated for each

electrolyte by assuming irreversible statistical adsorption. The rate constant for this process,  $k_{\text{eff}}$ , may reflect the limitations of the interfacial reaction or, alternatively, may correspond to a mass transport constraint across a boundary layer  $\delta$ . Considering transport parameters for MPSA identical to those for  $\text{Cu}^{2+}$  and saturation coverage corresponding to a  $\sqrt{3} \times \sqrt{3}$  R30° structure on Cu(111), and estimate of  $k_{\text{eff}} = \Delta/\Gamma_o\delta = 4.01 \times 10^2 \text{ L/mol}\cdot\text{s}$

$$\theta(t) = 1 \exp(-C_{\text{MPSA}}k_{\text{eff}}t) \quad [1]$$

Fitting Eq. 1 to the resulting  $i(\theta)$ - $\eta(\theta)$  curves to estimate  $i_o(\theta)$  and  $\alpha(\theta)$  was simplified by fitting only the points when  $i = 10 \text{ mA/cm}^2$ , chosen for experimental sensitivity (Fig. 1). The corresponding  $\theta$  increases with  $C_{\text{MPSA}}$  of the electrolyte, defining  $i_o(\theta)$  and  $\alpha(\theta)$  over the full range  $\theta:[0,1]$ . The simulated  $i$ - $\eta$  curves in Fig. 2b were obtained using Eq. 1 and 2 with  $i_o(\theta)$  and  $\alpha(\theta)$  as estimated. The hysteresis evident in Fig. 2b is in agreement with the experiments (Fig. 2a), particularly for higher  $C_{\text{MPSA}}$ .